

IN THE ABSTRACT

The following paragraph will replace all prior versions of itself in the abstract of the application.

--ABSTRACT

A method and apparatus capable of suppressing fluctuation in shrinkage of a silica glass pipe such that an optical fiber preform uniform in the longitudinal direction can be produced are provided. In the step of depositing a glass layer in the silica glass pipe, at least the amount of the exhaust gas or buffering gas is feedback-controlled, and at least other one of them is pattern-controlled according to a flow rate pattern corresponding to heating positions on the silica glass pipe. The apparatus includes two or more in total of an exhaust portion and a buffering gas inlet portion, a heat source, a position detecting means for detecting a heating position, a first control means for controlling at least the amount of the exhaust gas or buffering gas according a flow rate pattern corresponding to heating positions, and second control means for feedback-controlling at least other one of them. --